

FIG. 1

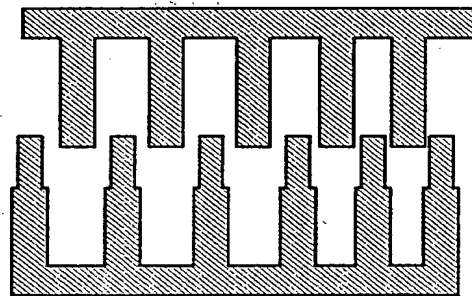


FIG. 2

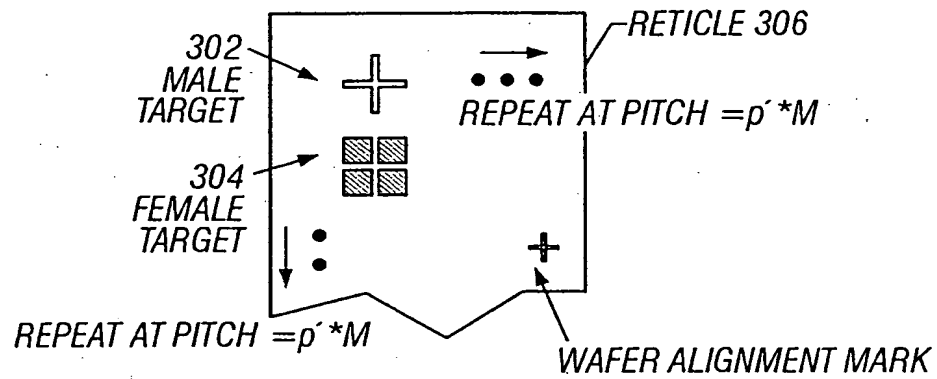


FIG. 3



FIG. 4

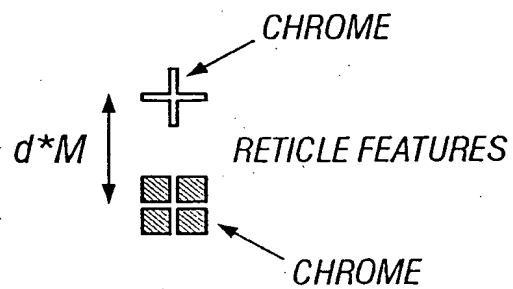


FIG. 5

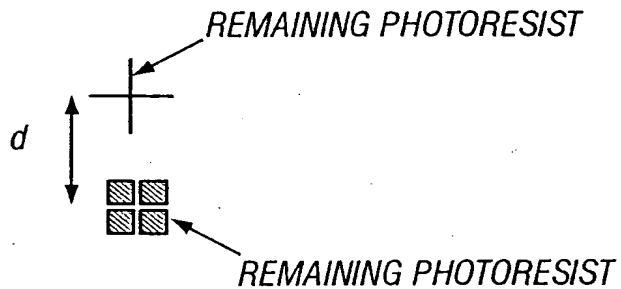


FIG. 6



FIG. 7

um = microns, Dark = unexposed, white = exposed.


 20um x 20um

FIG. 8A

um = microns, Dark = chrome, white = clear.


 80um x 80um

FIG. 8B

□

FIG. 9

um = microns, Dark = unexposed, white = exposed.

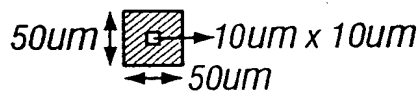


FIG. 10A

um = microns, Dark = chrome, white = clear.

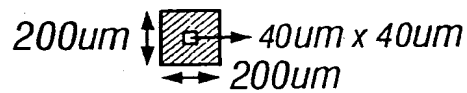


FIG. 10B

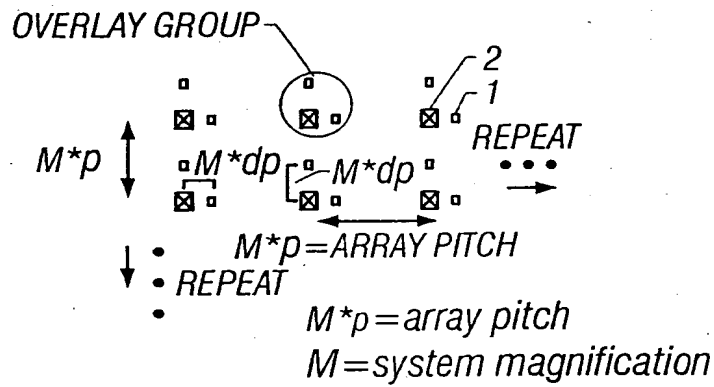


FIG. 11

**(3 featured parts); dark=unexposed,
 white=exposed.**

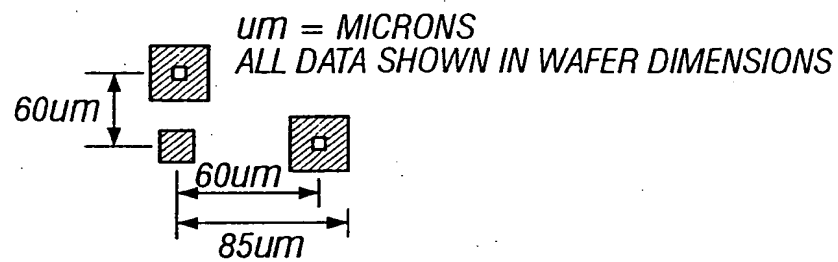


FIG. 12A

**dark=unexposed,
 white=exposed. um=microns at wafer.**

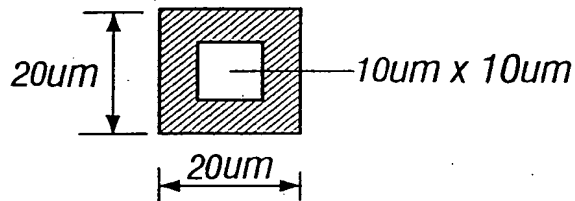


FIG. 12B

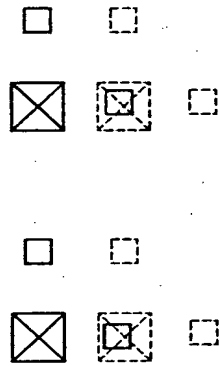
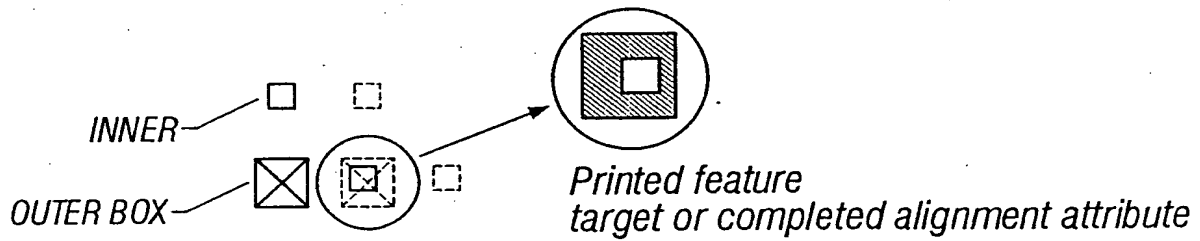


FIG. 13

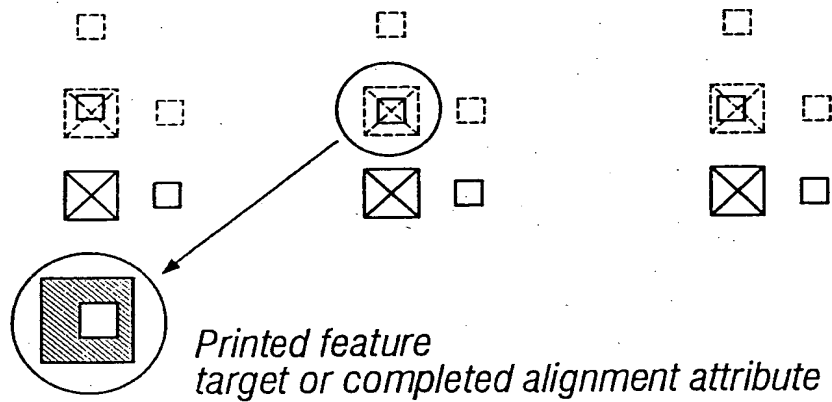


FIG. 14A

CA=completed alignment attribute, UA=unusable alignment attribute

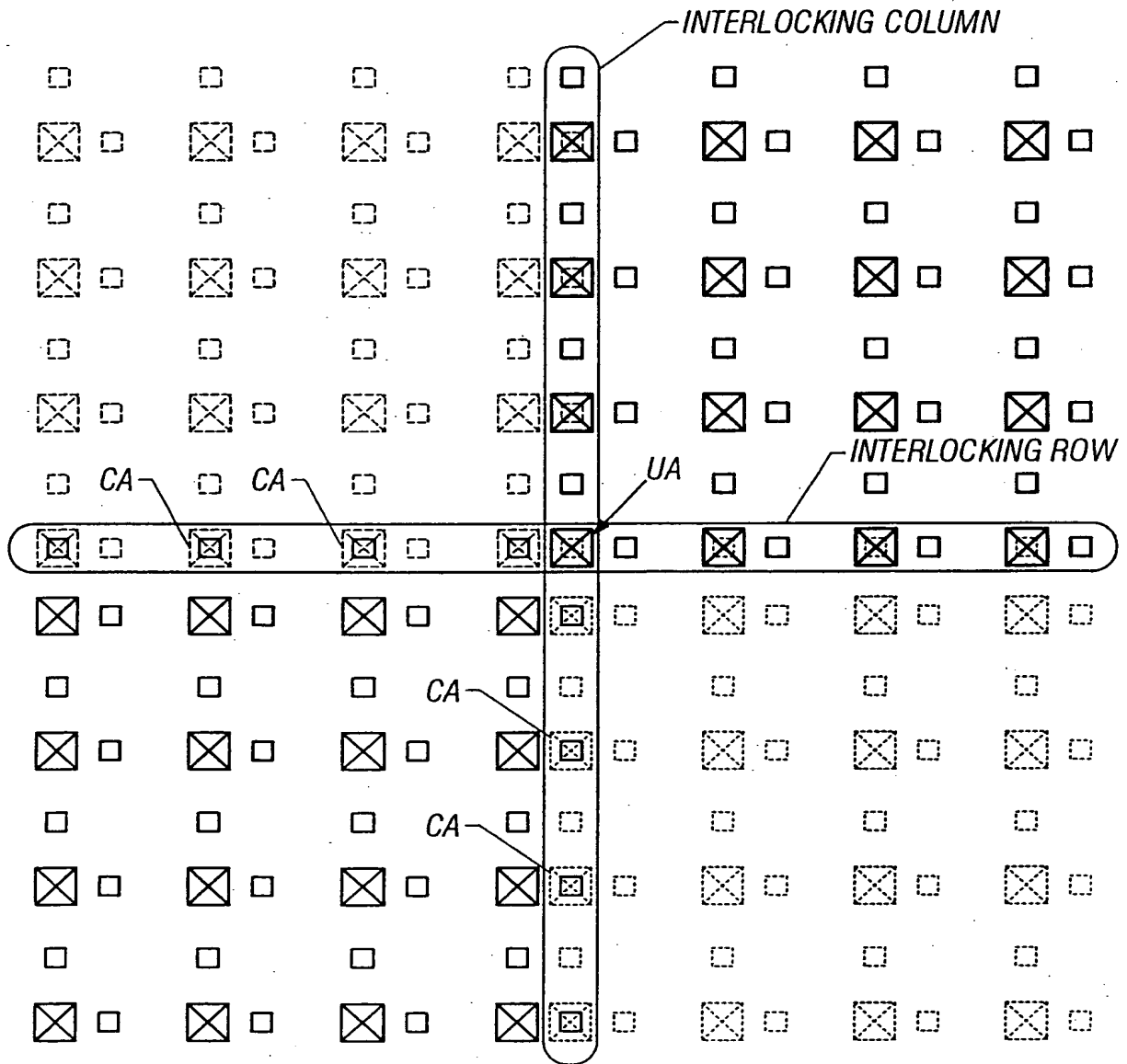


FIG. 14B



FIG. 15



FIG. 16

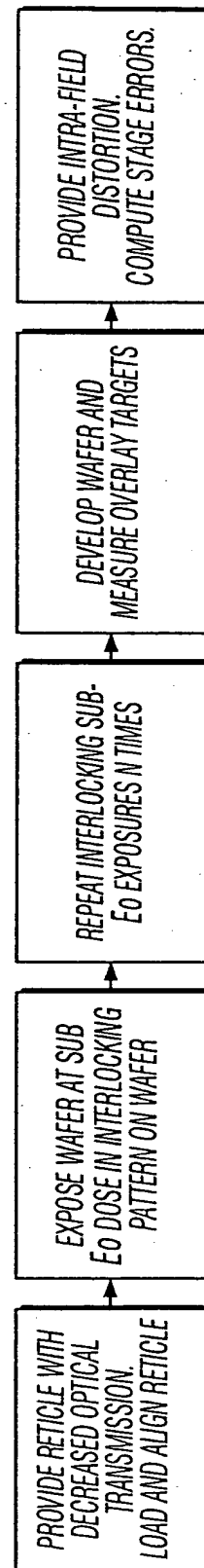


FIG. 17

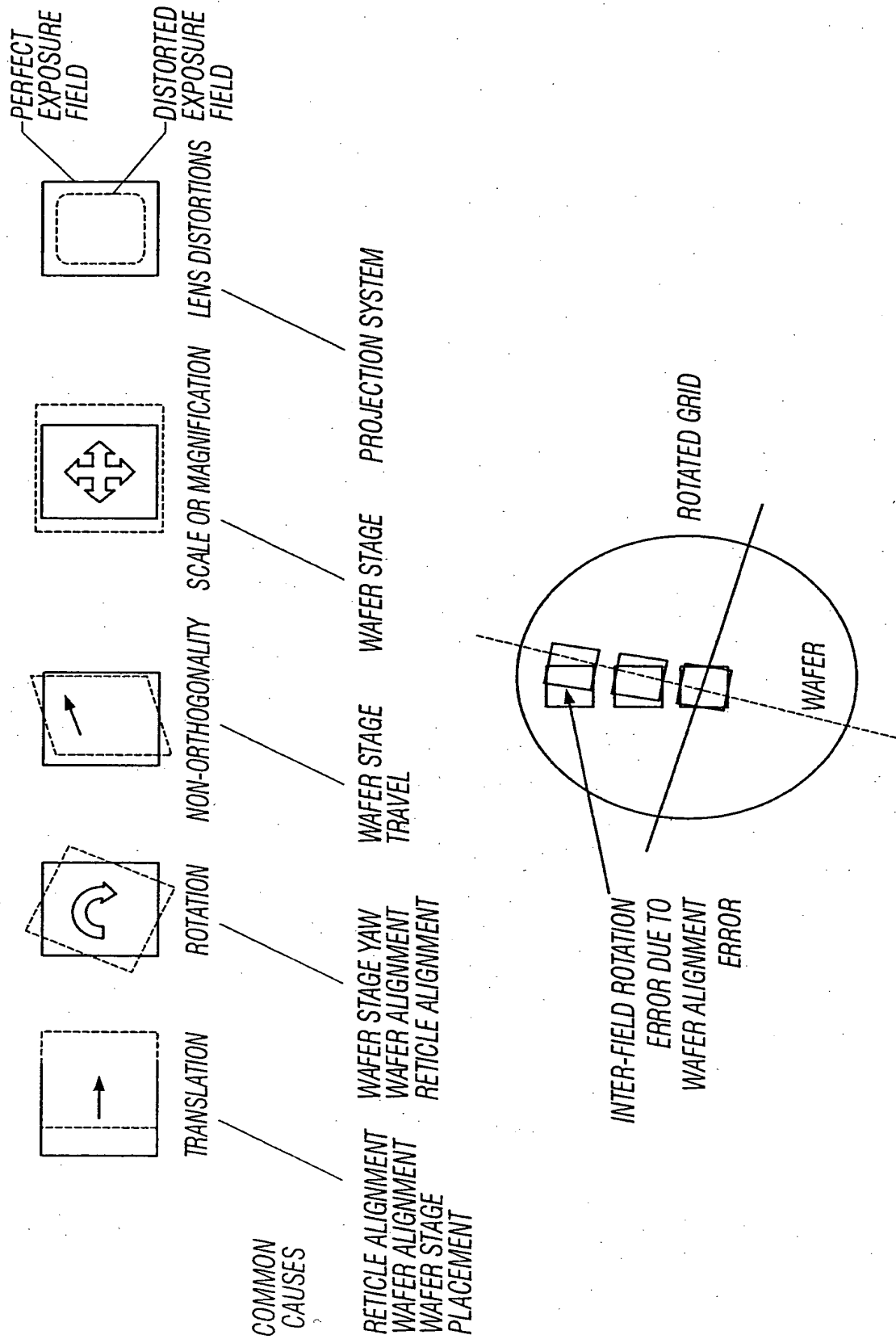


FIG. 18

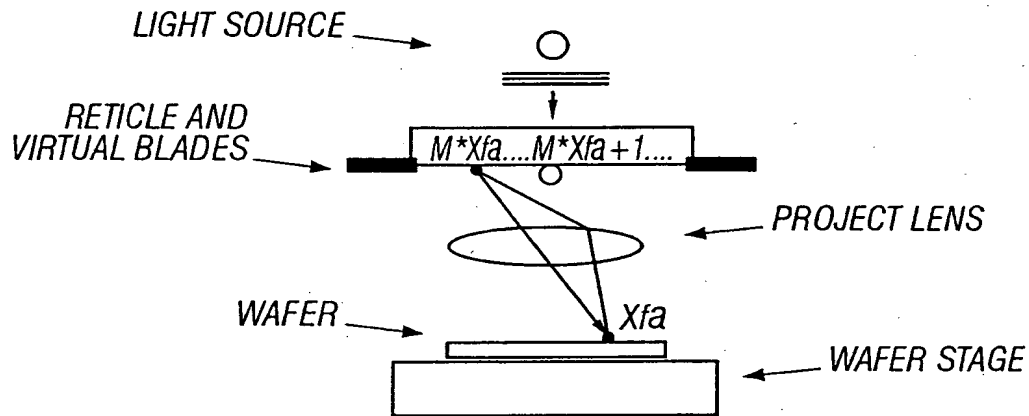


FIG. 19

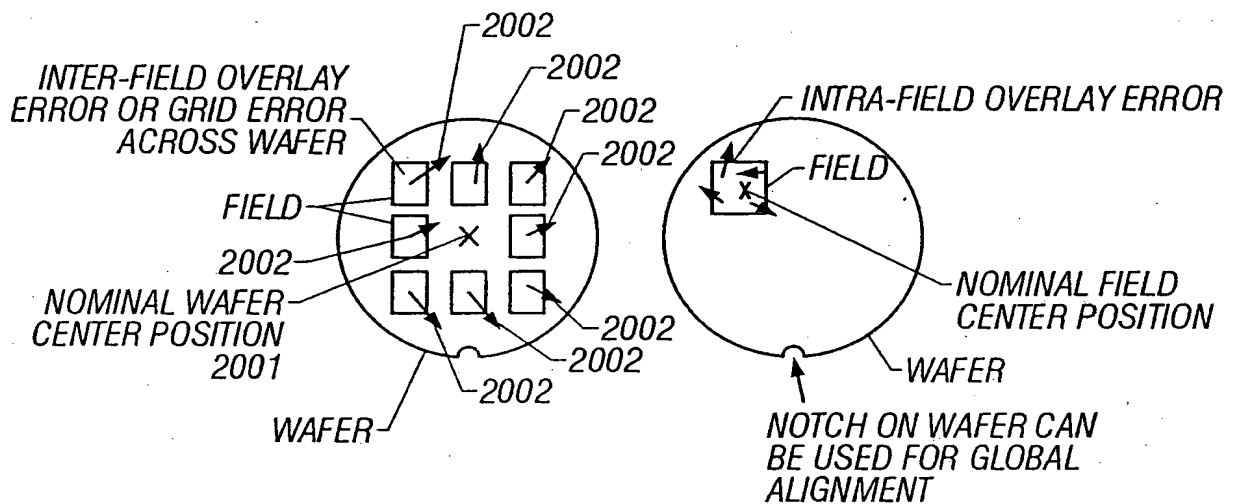


FIG. 20A

ZERO YAW=SOLID LINE FIELDS
 NON-ZERO YAW=DASHED FIELDS

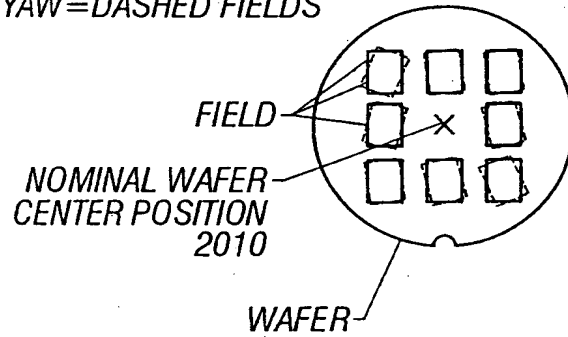


FIG. 20B

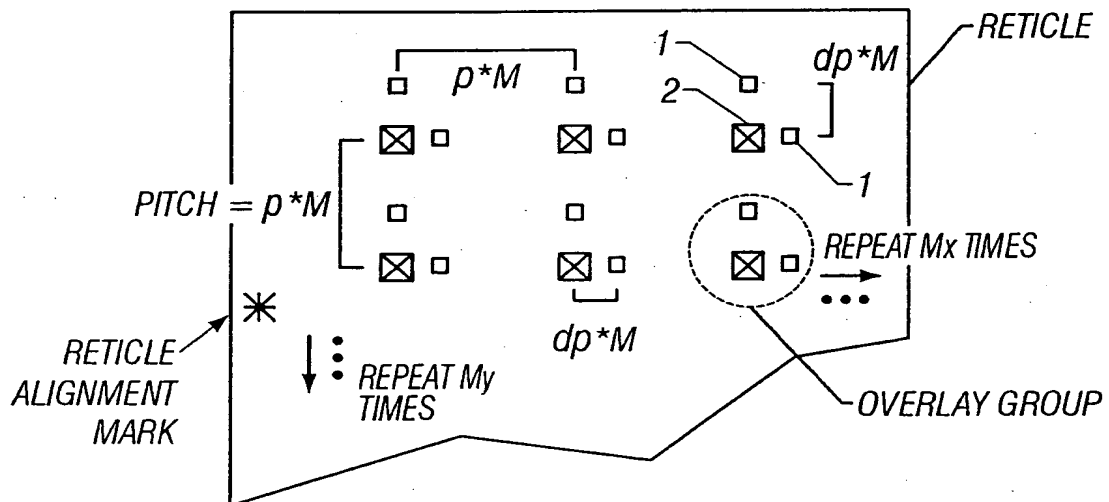


FIG. 21A

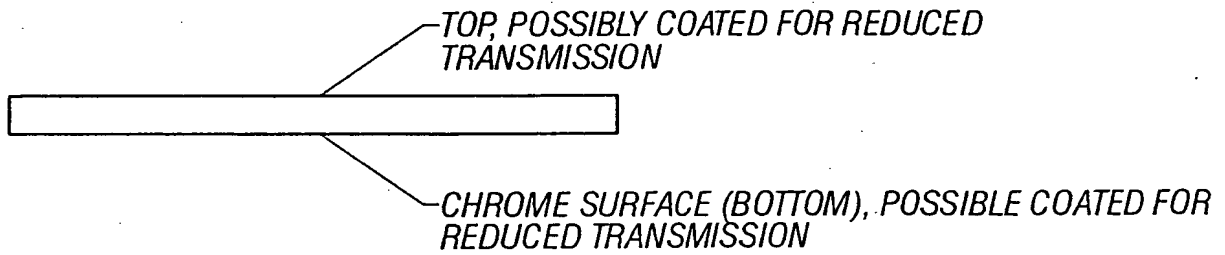


FIG. 21B

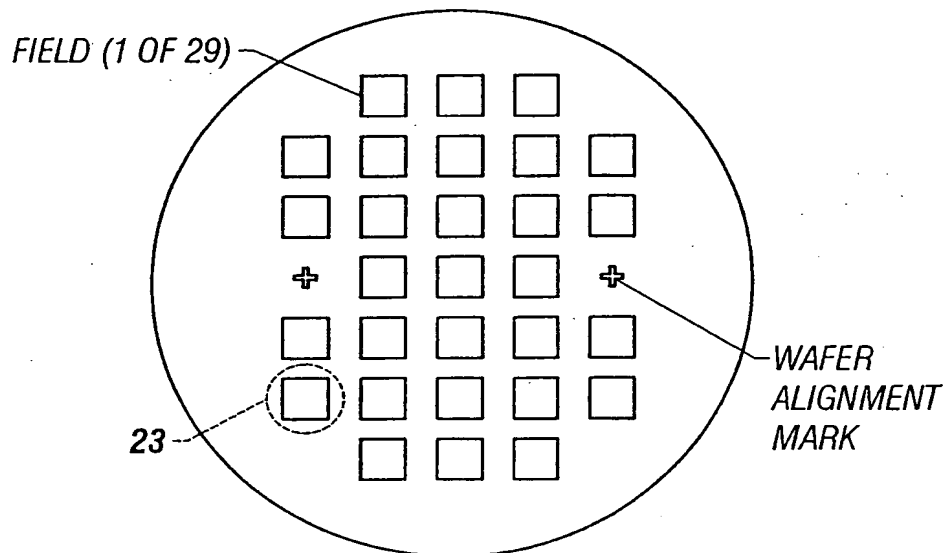
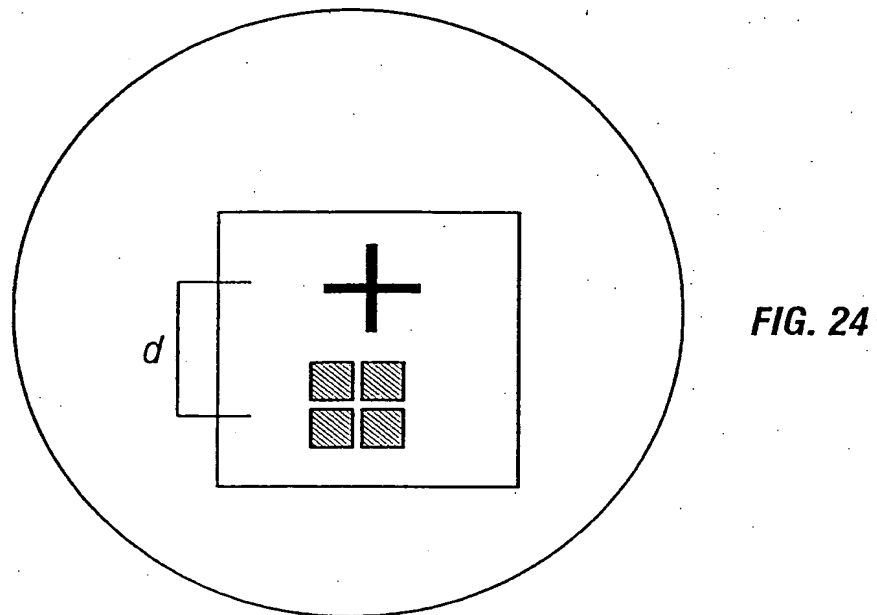
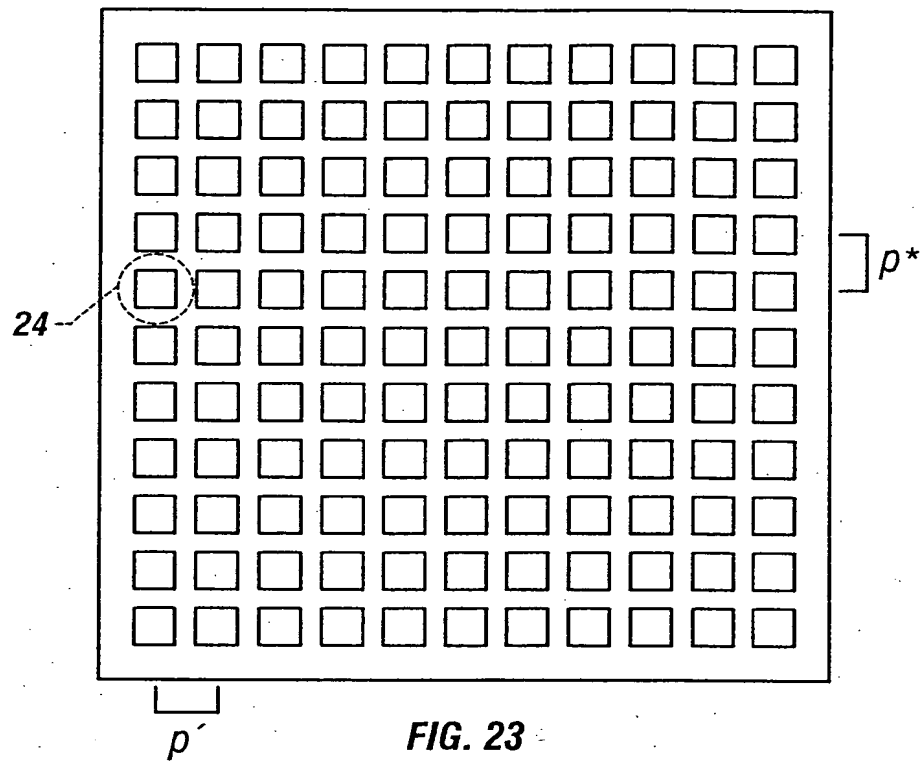


FIG. 22



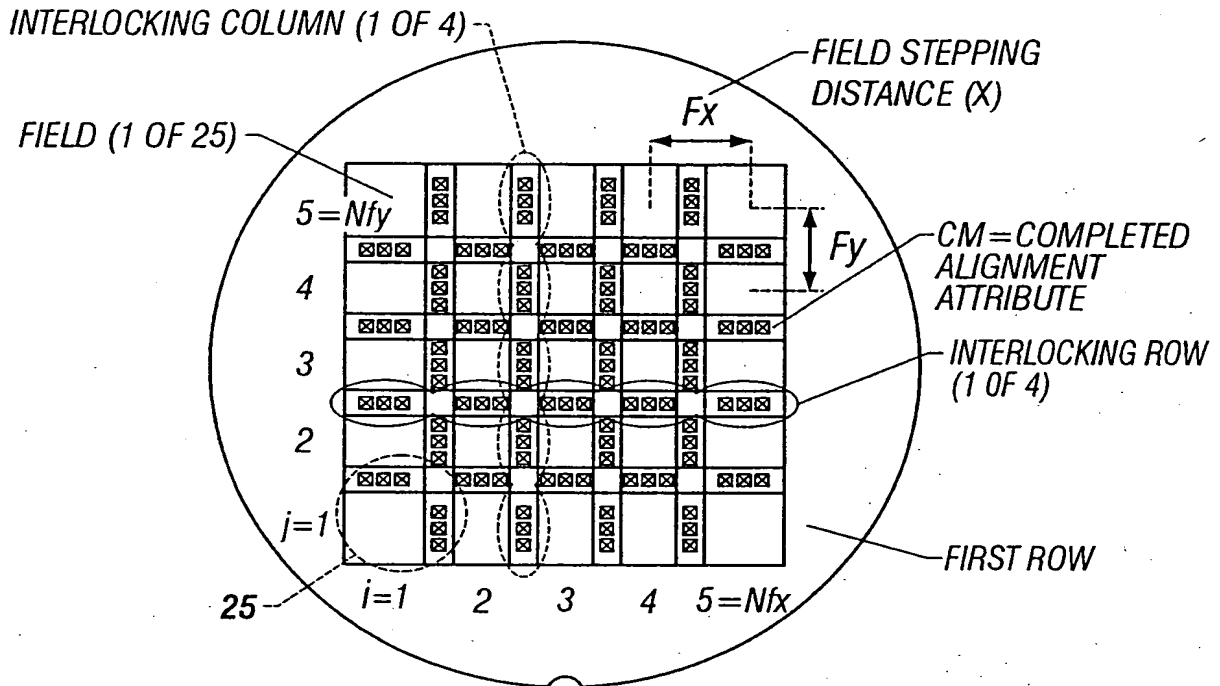


FIG. 26

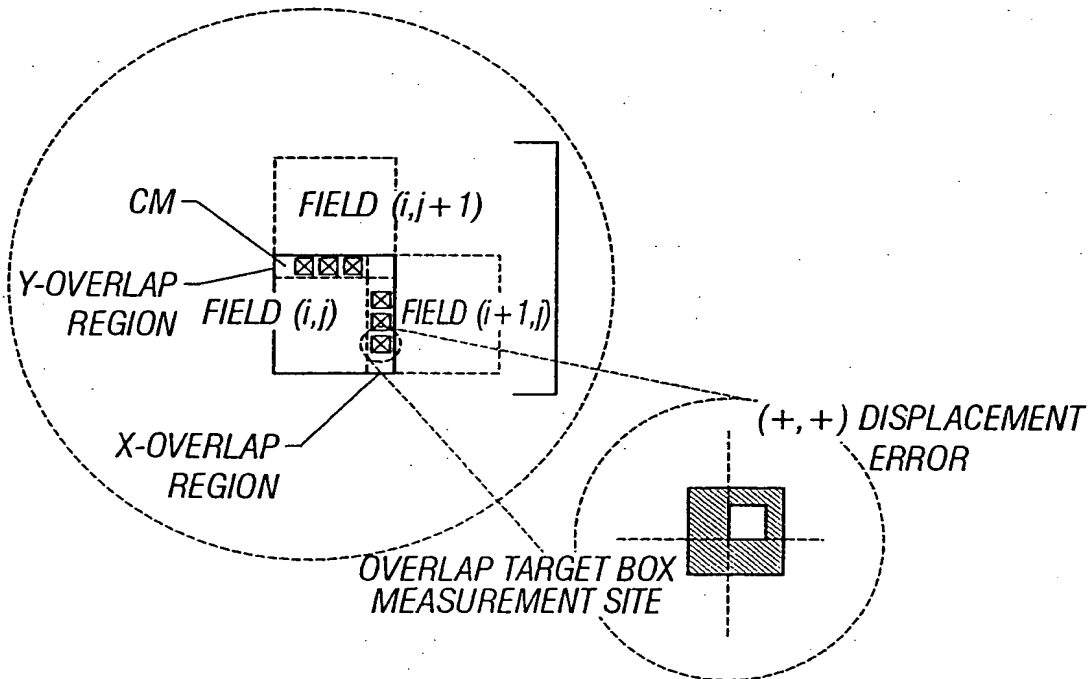


FIG. 25

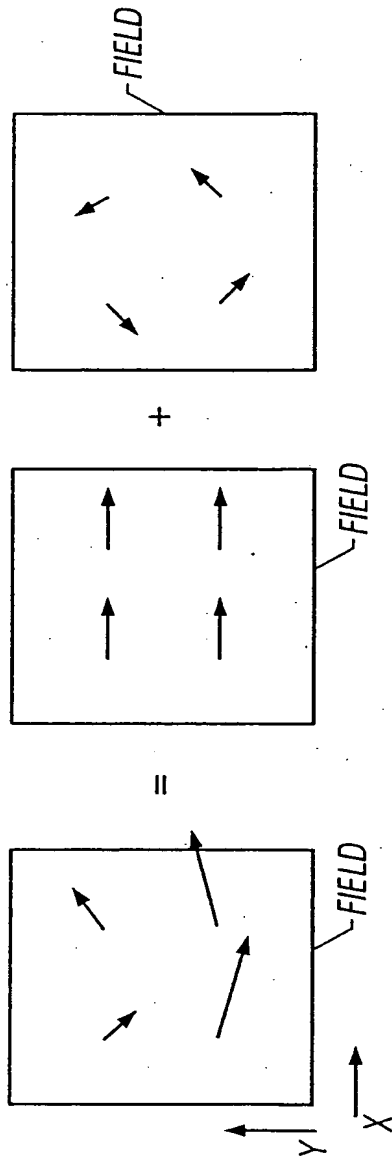


FIG. 29

FIG. 28

FIG. 27

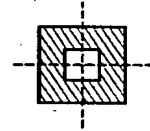
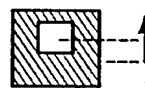


FIG. 31



THE VECTOR REPRESENTS THE ALIGNMENT
 OFFSET DISTANCE BETWEEN THE BOX-IN-BOX
 STRUCTURE

FIG. 30

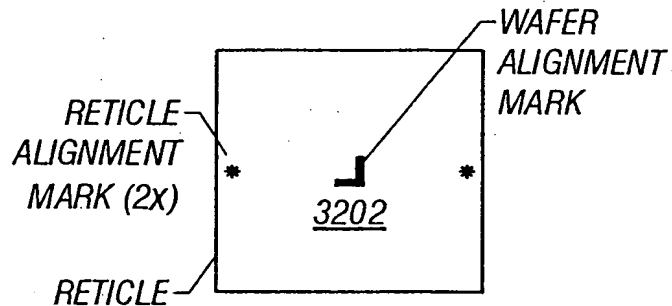


FIG. 32

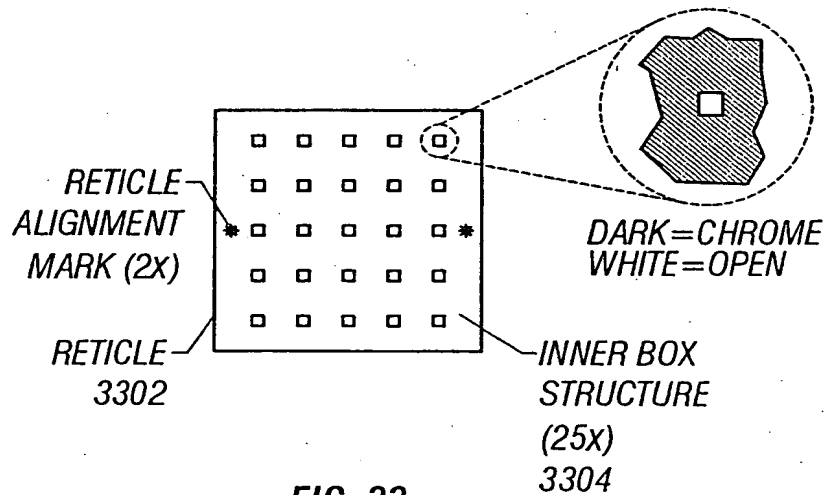
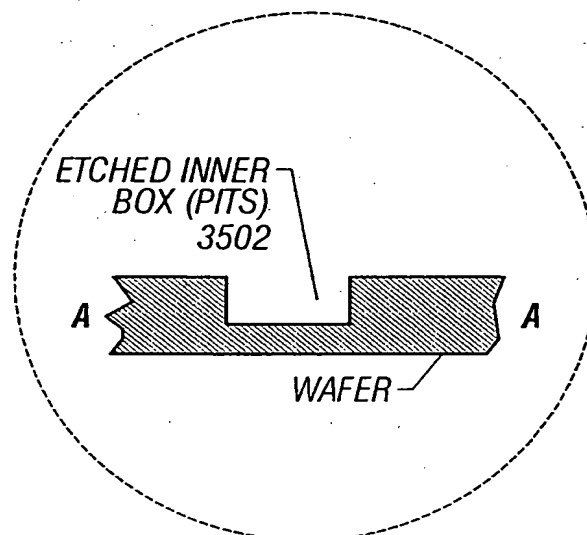
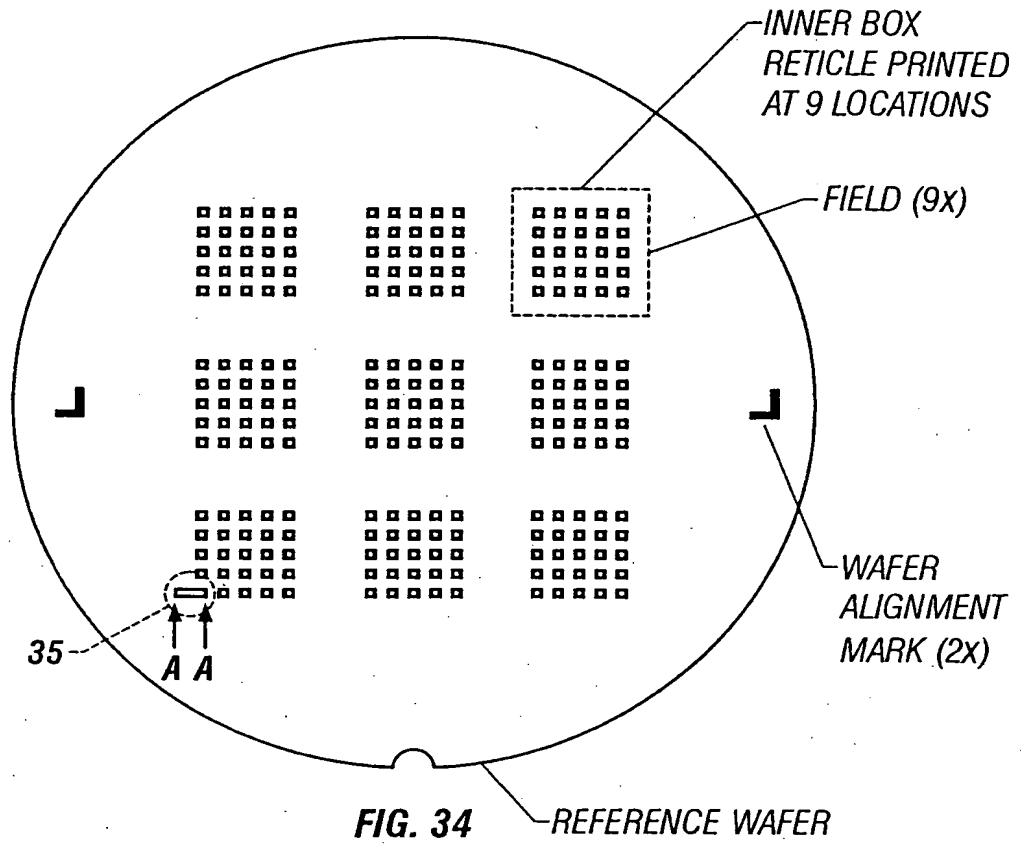


FIG. 33



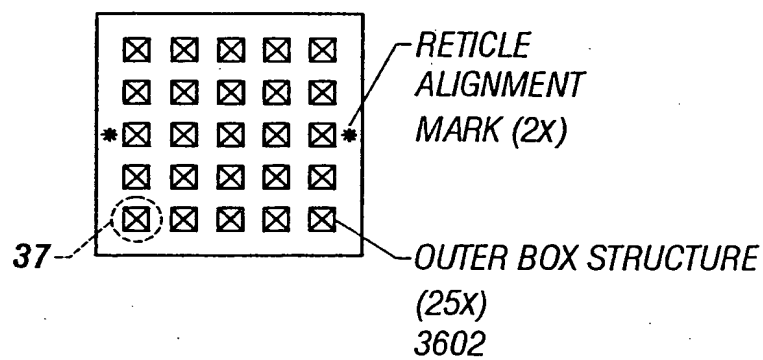


FIG. 36

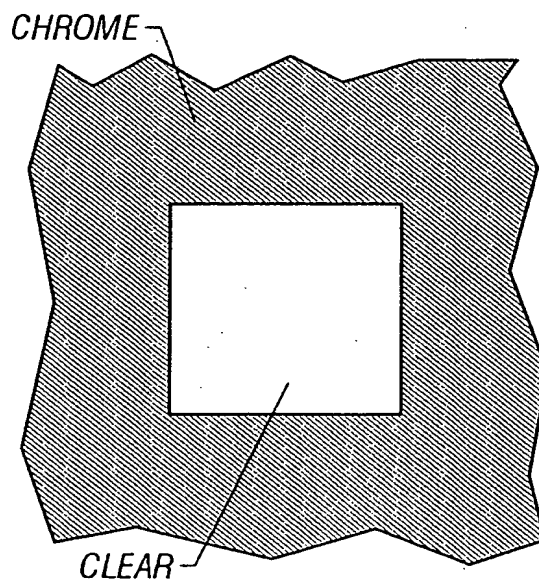
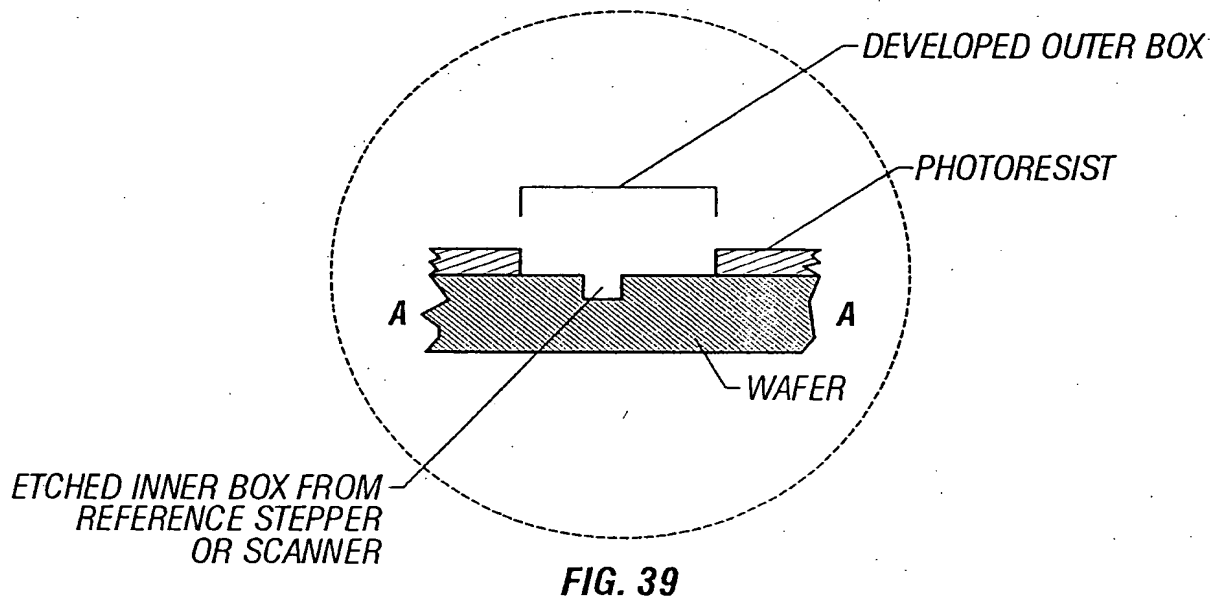
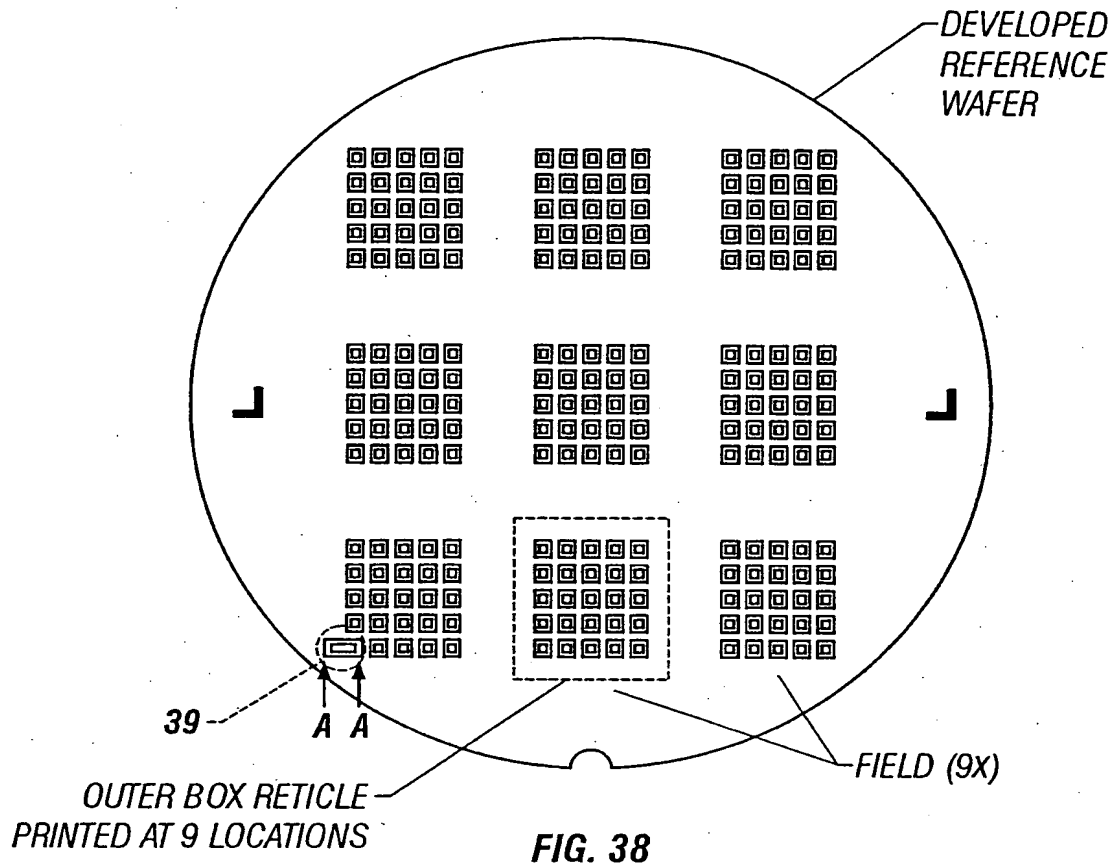


FIG. 37



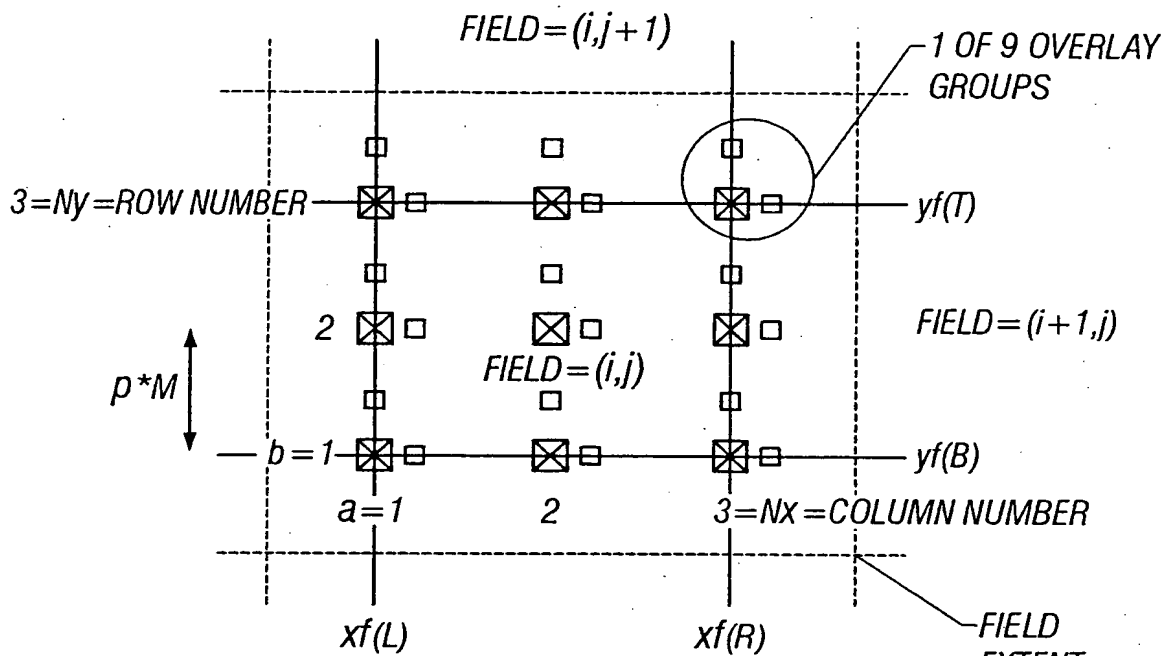


FIG. 40

Dark=chrome, white=clear.

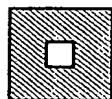


FIG. 42

Dark=chrome, white=clear.



FIG. 43

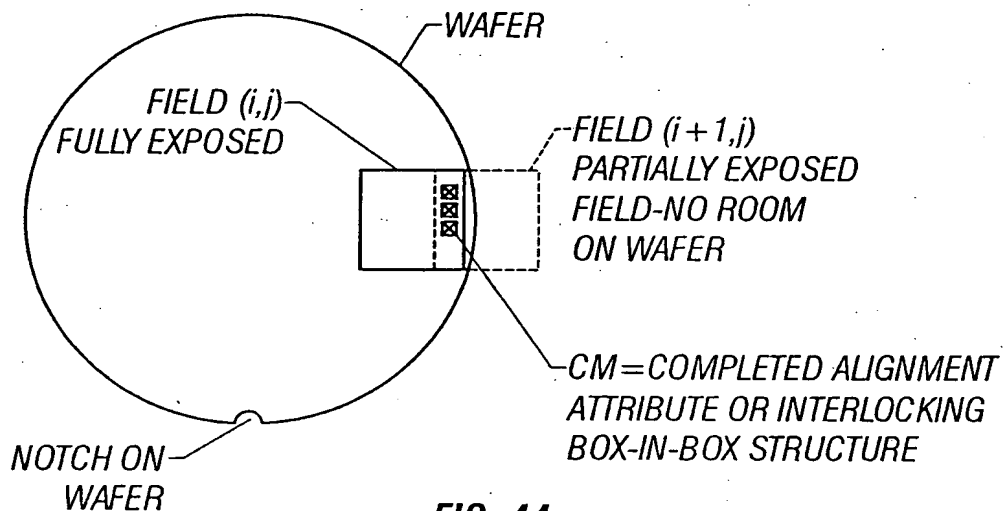


FIG. 44

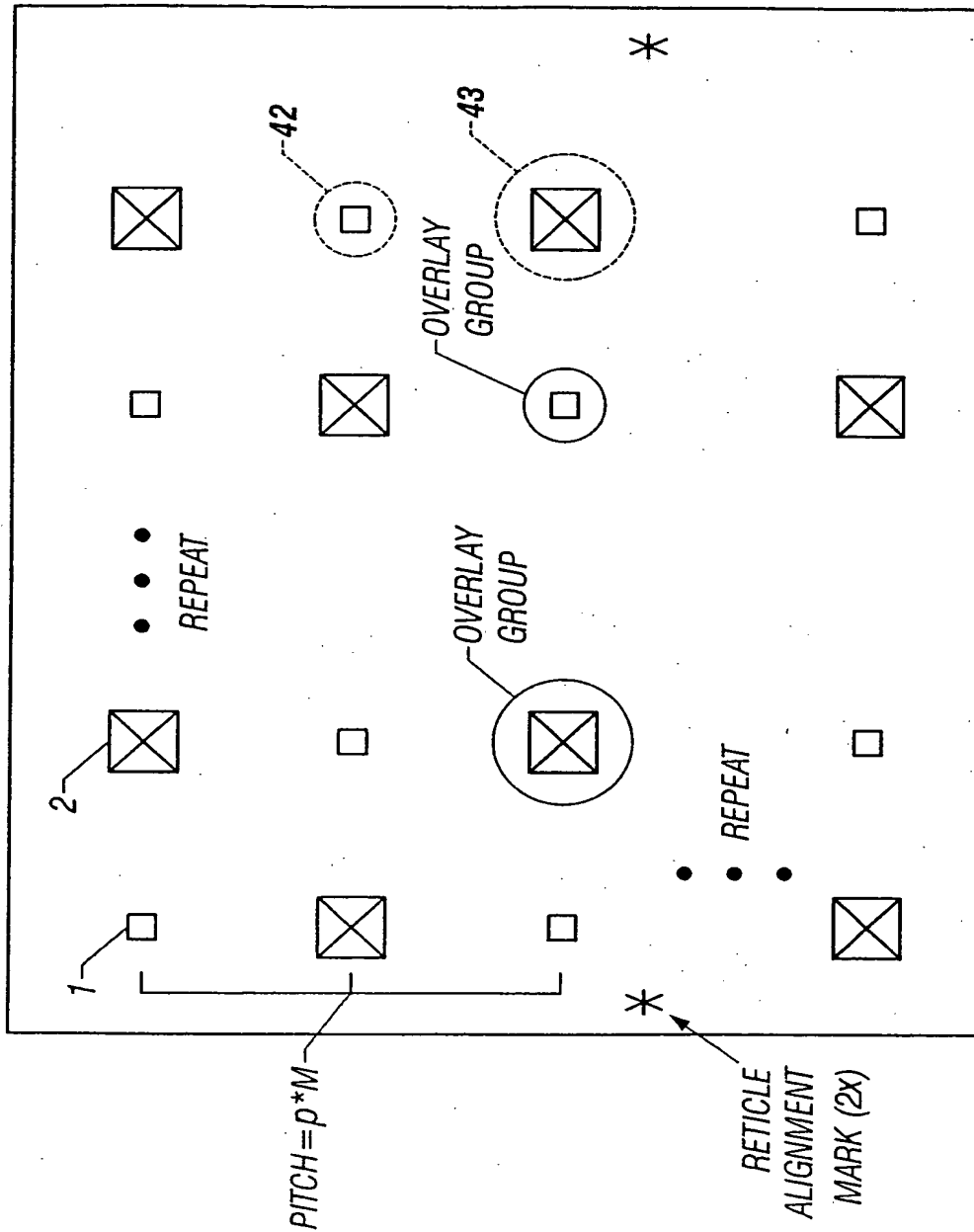


FIG. 41

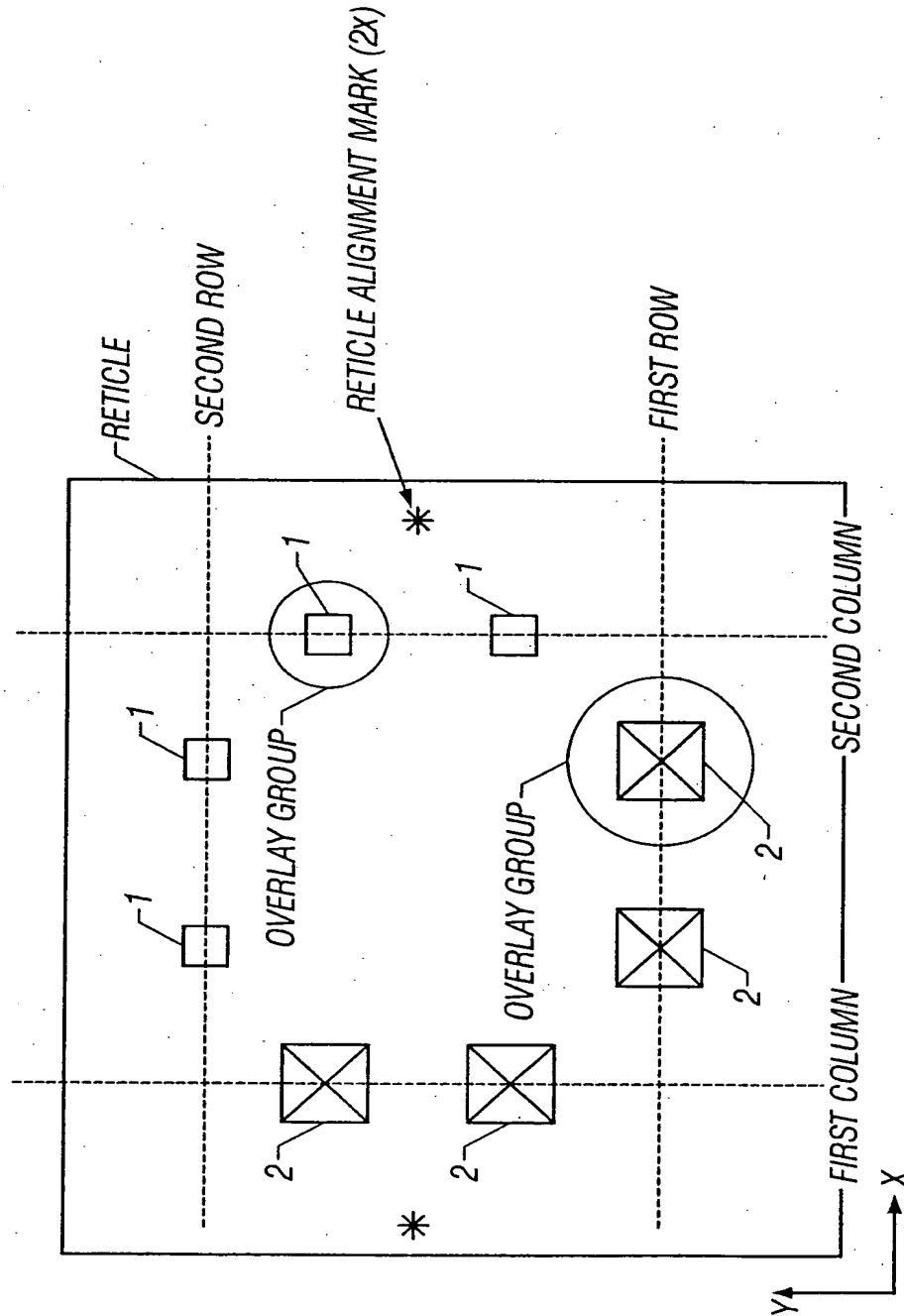


FIG. 45

*Length units = microns,
Yaw units = microradians,
xG, yG = nominal field center position.
dxG, dyG = offset of center of field.
Qg = yaw of field.
Fx, Fy = field stepping distance,
srel = grid scale - intra-field scale (parts per million),
D = wafer diameter.*

```

machine id: DUVX5J
D          :200000.000
Ex         : 20000.000
Fy         : 20000.000
srel       :   -39.455

      xG          yG          dxG          dyG          Qg
-100000.000      0.000      -0.139      0.044      10.3
-80000.000       0.000      0.223     -0.233      94.0
-60000.000       0.000      0.498      0.004     -34.7
      .           .           .           .           .
      .           .           .           .           .
      .           .           .           .           .
60000.000      40000.000      0.099     -0.188      59.2

```

FIG. 46